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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/404,313	09/24/1999	TATSUHIKO AMAGAI	Q055935	8283

7590 09/11/2003
SUGHRUE MION ZINN MACPEAK & SEAS
2100 PENNSYLVANIA AVE NW
WASHINGTON, DC 20037

EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 09/11/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/404,313

Applicant(s)

AMAGAI ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 3,4,7,12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/24/99 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3-7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference sign "14" as mentioned in the description on page 25, line 26. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 13 is objected to because the parenthetical recitations should be removed in lines 7-11 and "tuning" in line 8 should be --tunneling--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 5-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al. (US 5,303,344) in view of Albal et al. (US 4,821,265) and Stoner et al. (US 6,052,383).

3. Regarding claims 1-2, 5-6, 8-9 and 11, Yokoyama discloses a packet processing apparatus (Figure 8) for converting packet data through several layers (abstract, lines 10-21). The apparatus comprises a shared memory (item 30) for storing in a same memory space part of each of the packet data accessed by the layer 2 and layer 3 processing (Figure 10; col. 6, line 61 through col. 7, line 2). However, the apparatus does not disclose a packet memory for storing the entire packet. Albal discloses a packet memory (Figures 1 and 2, item 19) for storing an entire packet at a communication interface in order to hold packets not ready for transmission from the interface (items 60, 62, 84 and 86; col. 7, lines 61-64). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a packet memory in the invention of Yokoyama. Further, Yokoyama in view of Albal does not disclose that the layer 2 and layer 3 processing processors access the shared memory through separate buses. Stoner discloses separate component buses (Figure 1, items 9, 11, 13 and 15) in order to give dedicated access between the components (col. 4, lines 11-14 and lines 43-54). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have the processors

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access the memory through different buses in the invention of Yokoyama in view of Albal.

Further regarding claim 2, the shared memory (Figure 8, item 30) has multiple ports and layer 2 and 3 processing is performed according to the OSI model (col. 5, lines 11-18).

4. Regarding claim 10, a processor at a layer higher than 3 is connected to the packet processors (Figure 1, item 70; Figure 3).

Allowable Subject Matter

5. Claims 3-4, 7 and 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and rewritten to overcome applicable claim objections.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bennett et al. (US 6,122,670) discloses a buffer in between layer 2 and layer 3 processors (Figures 2B and 4). Nakatani et al. (US 5,187,708) and Tanaka et al. (US 5,903,568) each discloses an interface between layer 2 and layer 3 processors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The fax number for Technology Center (TC) 2600 is 703-872-9314.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



August 25, 2003



DANG TON
PRIMARY EXAMINER